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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/700,970	02/02/2001	Reidar Schumann-Olsen	28170-00026	3208

27045 7590 05/26/2004

ERICSSON INC.
6300 LEGACY DRIVE
M/S EVR C11
PLANO, TX 75024

EXAMINER

AHN, SAM K

ART UNIT PAPER NUMBER

2634

DATE MAILED: 05/26/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/700,970

Applicant(s)

SCHUMANN-OLSEN, REIDAR

Examiner

Sam K. Ahn

Art Unit

2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, all the elements including the counter, signal element clock, variable phase clock and buffer, as recited in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. This application does not contain an abstract of the disclosure as required by 37 CFR 1.72(b). An abstract on a separate sheet is required.

Claim Objections

3. Claims 1-2 objected to because of the following informalities:

In claims 1 and 2, line 1, delete "Method---", and insert "A/The method".

In claim 1, line 5, delete "samling" and insert "sampling".

In claims 1 and 2, lines 14 and 1, respectively, delete "transmitted signals" and insert "transmitted data signals".

In claim 2, line 3, delete "in the DTE" and insert "from the DTE".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-2 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not describe how one skilled in the art would make and use the invention. The specification does not describe the configuration of the elements, such as counter, signal element clock, variable phase clock and buffer, to enable the compensation of a cable delay, and specifically does not describe how the counter is used to ensure that the data is always sampled in the middle of symbols.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-2 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the data sampling" in line 5, "the signal element clock signals" in line 9, and "the transitions" in line 10. There is insufficient antecedent basis for this limitation in the claim, wherein claim 2 directly depend on claim 1.

6. Claims merely recite used without any active, positive steps delimiting how these use are actually practiced. Without reciting any practiced, positive steps, claims 1-2 do not achieve the purpose of a method.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Ferraiolo et al. (Ferraiolo, cited in the IDS, paper no.5).

Regarding claim 1, Ferraiolo teaches a method for compensating a line delay, wherein the system clock is independent of the length of the channel line. (note col.2, lines 28-30) Ferraiolo further teaches a counter (16 microsecond counter or timer, note col.5, lines 39 – col.6, line 16), a signal element clock (REF Clk to 92, 94 and 96 in Fig.5), a variable phase clock (clock) and a buffer (22 in Fig.1 and 80, 82 and 84 in Fig.5). Ferraiolo further teaches wherein the compensation of cable delay comprises transmitted data signals are delivered with reference to

the signal element clock signals (received through 14A in Fig.1 STI bus which was initially transmitted through 12A bus line), and that the transitions in the transmitted signal is used as a reference for resetting the counter, (note col.5, line 39 – col.6, line 16) wherein the 16 microsecond counter is reset when condition is not met, and continue the function of delay compensation in order to ensure that the data is always sampled in the middle of the symbols of the transmitted data signals. (note col.6, lines 17-38 and col.4, lines 55-65)

However, Ferraiolo does not explicitly disclose that the delay compensation is for a cable delay between DCE and DTE. Ferraiolo, however, do suggests that the teaching is applicable for any data transfer between two nodes. (note col.3, lines 1-4) Therefore, it would have been obvious to one skilled in the art at the time of the invention to implement Ferraiolo's teaching in a modem environment for the purpose of compensating any delays occurring during transmission and effectively synchronize.

Regarding claim 2, Ferraiolo teaches all subject matter claimed, as applied to claim 1. Ferraiolo further teaches wherein the signal element clock (reference clock input to all RES's and FES's in Fig.5) are clocked out as the reference clock. However, Ferraiolo does not explicitly disclose that the input to said buffer is clocked by the variable phase clock. Ferraiolo teaches the buffers (80, 82, 84 in Fig.5), but not further illustrating a specific clock to run the buffers. One skilled in the art would recognize that any digital component requires a clock to

synchronize, and therefore, it would have been obvious to one skilled in the art at the time of the invention to couple the buffer to a clock, which may well be the variable phase clock, as the claim does not further limit or explain the significance of the variable phase clock, and therefore would be broadly interpreted, for the purpose of effectively synchronizing the data inputted to buffer.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Georgiou et al. teach the phase of the sampling clock is subsequently adjusted relative to the input signal when the reference clock signal is in phase with the input signal such that the clocking transition of the sampling clock is offset from the data transition of the input signal.

Torok et al. teach wherein the transmitter clock is compared with a common reference clock and a fixed increment clock adjustment signal is transmitted to the receiver, adjusting the clock by applying adjustment signal to the common reference clock.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Sam Ahn** whose telephone number is **(703) 305-0754**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Stephen Chin**, can be reached at **(703) 305-4714**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

P.O. Box 1450

Alexandria, VA 22313-1450

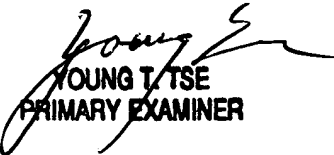
or faxed to:

(703) 872-9306

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA., Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Sam K. Ahn
5/17/04


YOUNG T. TSE
PRIMARY EXAMINER